[Counsel identified on signature page]

UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

OAKLAND DIVISION

EOLAS TECHNOLOGIES INCORPORATED,

Plaintiff,

v.

AMAZON.COM, INC.,

Defendant.

Case No. 17-CV-03022-JST

Related to Case Nos. 4:17-cv-01138-JST, 4:17-cv-03023-JST, and 4:15-cv-05446-JST

DEFENDANTS' NOTICE OF MOTION AND MOTION FOR LIMITED RECONSIDERATION OF CONSTRUCTION OF "INTERACTIVE-CONTENT APPLICATION"

Judge: Hon. Jon S. Tigar
Hearing Date: July 16, 2020
Hearing Time: 2:00 P.M.
Location: Courtroom 6, 2nd Floor

REDACTED VERSION OF DOCUMENT SOUGHT TO BE SEALED

NOTICE OF MOTION

TO ALL PARTIES AND THEIR ATTORNEYS OF RECORD:

PLEASE TAKE NOTICE that on July 16, 2020, at 2:00 P.M. or as soon thereafter as the matter may be heard by the Honorable Jon. S. Tigar in Courtroom 6, 2nd Floor, United States District Court for the Northern District of California, 1301 Clay Street, Oakland, CA 94612, Defendants Amazon.com, Inc. ("Amazon"), Google LLC ("Google"), and Walmart Inc. ("Walmart") shall and hereby do move the Court for reconsideration of the construction of the claim term "interactive content application."

This Motion is made pursuant to Federal Rule of Civil Procedure 54 and Local Rule 7-9(b). Defendants bring this motion for reconsideration on the grounds that the court in *Eolas Technologies Inc. v. Amazon.com, Inc.*, No. 6:15-cv-01038-RWS (E.D. Tex.), from which this case was transferred, erred in finding that the term "interactive content application" had a definite meaning.

This Motion is based upon this Notice of Motion and Motion, Memorandum of Points of and Authorities in support thereof, the Declaration of David A. Perlson and exhibits thereto, all pleadings and paper on file in this action, such other evidence or arguments as may be presented to the Court, and such other matters of which this Court may take judicial notice.

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MEMORANDUM OF POINTS AND AUTHORITIES

INTRODUCTION

Each of the claims in U.S. Patent No. 9,195,507 (the "'507 patent") recites a system that purports to enable a computer to interact with content inside a worldwide web page using something called an "interactive-content application," which Eolas touts as an advancement over the prior art. But the patent never says what the "interactive-content application" *is*. The claims, for example, refer solely to the functions the "interactive-content application" performs. Skilled artisans, for their part, do not use the term at all, much less to mean a specific software application or specific class of software applications. And were skilled artisans to search the specification for guidance about the meaning and structure of the "interactive content" application, they would find none. The specification does not use the term.

Consequently, Defendants contended before the Texas court that the term "interactive-content application" was indefinite for (at least) two different, but related reasons. *First*, the specification does not describe the "interactive-content application" at all, much less with the reasonable certainty required by controlling Supreme Court law in *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2124 (2014). *Second*, the term "interactive-content application" is, at best, a means-plus-function term subject to 35 U.S.C. § 112(f), and neither skilled artisans nor the specification can supply the want of a structural definition. The Texas court disagreed and construed the term "interactive-content application" functionally—indeed, tautologically—to mean "an application that enables a user to interact with content." This construction plainly does not define what "an application that enables a user to interact with content" actually is, and also expressly—and improperly—left it up to the jury to decide the legal question of what amount of "interactivity" would be sufficiently "interactive" to meet that element. Ex. 7 (Dkt. 212, Order), 10.

The Texas court's construction was clear error. The term "interactive-content application"

is indefinite as a matter of law.[1]

BACKGROUND

A. The '507 Patent Specification Does Not Say What The "Interactive-Content Application" Is.

The '507 patent issued in November 2015 and claims priority to an application filed October 17, 1994—more than 25 years ago. The specification never uses the term "interactive-content application"; it was added to the claims some two decades after the specification was written. According to the specification, in the prior art, content within a web browser could be assigned links and a user could interact with linked content by clicking to navigate to the linked content, which would cause prior-art browsers to display (or play) objects to the user. *See, e.g.*, Ex. 1 ('507 patent), at 1:67-2:3, 2:19-39, Figure 1 (labeled "prior art"). The specification calls this a form of "interaction." *Id.* at 6:30. For instance, the specification describes prior-art systems that allowed for the display of images or sound files (*id.* at 3:5-10, 3:28-33), and for access to "self-extracting" files (*id.* at 3:34-49, 3:51-52). The specification also describes "[o]ther existing approaches to embedding interactive program objects … [like] Object Linking and Embedding (OLE) facility in Microsoft Windows … and OpenDoc, by Apple Computer, Inc." *Id.* at 3:51-59.

The specification includes also generic descriptions of the functions of applications called "VIS" and "Panel," but provides no algorithms or flowcharts for performing these functions. *See id.* at 9:54-65, 10:6-15, 10:39-54, 11:22-25, 15:47-48, 16:2-16, 16:17-36. The specification includes also two code appendices, but it is undisputed that neither includes code for the "interactive-content application." *See* Ex. 2 (Dkt. 178-2, Joint Claim Construction Chart), 1-2. Instead, the appendices include code for (1) a modified Mosaic web browser, and (2) defining the functions necessary for an interface referred to as the "Mosaic/External Application Program

[1] Local Rule 7-9(b) sets forth a standard for a motion for leave for consideration, requiring, for example, "[a] manifest failure by the Court to consider material facts or dispositive legal arguments which were presented to the Court before such interlocutory order." N.D. Cal. L.R. 7-9(b)(3). Here, given the Court has already granted leave for reconsideration, Defendants respectfully request that the Court review this legal issue *de novo*, as the Court has discretion to address any prior order at any time prior to judgment. *See* Fed. R. Civ. P. 54(b).

Interface, known in the specification as "MEAPI." Ex. 3 (Dkt. 174-16, Declaration of Dr. Todd Mowry ("Mowry Decl.")) ¶¶ 50-51. The MEAPI interface is not an "interactive-content application," and no one contends that it is. *See id.*

All of the asserted claims[2] recite the term "interactive-content application." Similar to the specification, the claims never describe what the "interactive-content application" is. Instead, all three independent claims recite the same two functions performed by the "interactive-content application": (1) enabling "interaction" with objects within a web page, and (2) operating as part of some "distributed application." Claim 32 is exemplary. As shown in red below, the claim recites the first function the "interactive-content application" performs—it enables "interaction":

> (i) a World Wide Web browser on a client computer connected to the World Wide Web distributed hypermedia network has been configured with a plurality of different *interactive-content applications*, each said *interactive-content application* being configured to enable a user to interact, within one or more World Wide Web pages, with at least part of one or more objects while at least part of each of said one or more objects is displayed to the user within at least one of said one or more World Wide Web pages, and

The claim recites also that the browser can "select" and "automatically invoke" the "interactive-content application." But this portion of the claim, too, fails to recite what an "interactive-content application" is, essentially repeating (in red below) the function of the "interactive-content application" previously recited:

> (iii) the World Wide Web browser has been configured to:
>
> …
>
> b. automatically invoke the selected *interactive-content application* to enable the user to employ the selected *interactive-content application* to interact within the World Wide Web page with at least part of the object while at least part of the object is displayed to the user within the World Wide Web page, wherein

Finally, the claim concludes by reciting the second function performed by the "interactive-content application"—operating as part of a "distributed application" (shown in red)—but again

[2] Eolas asserts claims 19, 24, 26, 32, 37, 39, and 45 of the '507 patent. Independent claim 19 is a system claim and the other two independent claims 32 and 45 are method claims.

without reciting what an "interactive-content application" is:

> the automatically invoked *interactive-content application* has been configured to operate as part of a distributed application configured to enable a user to perform the interaction through the use of communications sent to and received from at least a portion of the distributed application located on two or more distributed application computers connected to the World Wide Web distributed hypermedia network on the Internet, the two or more distributed application computers being remote from the client computer.

The other asserted claims are similar to claim 32 in that none actually recites what an "interactive-content application" is.

ARGUMENT

A. The Texas Court Erred In Finding "Interactive-Content Application" Was Not Indefinite And By Leaving The Legal Question Of Its Meaning To The Jury.

All of the evidence, both intrinsic and extrinsic, shows that the term "interactive-content application" is a meaningless nonce word coined by the applicants for claims that were drafted some twenty years after the specification was filed. The claims describe the term functionally and without any structural limits. Skilled artisans do not use the term. Nor does the specification. And thus neither can supply the want of structural definition. Instead, the "interactive-content application" is merely a black box, which Eolas now contends may be filled by anything and everything that can perform the recited functions. Our patent law does not permit such an illogical and inequitable result.

1. "Interactive-Content Application" Is A Coined Term And Must Be Understood By Reference To The Specification.

"Interactive-content application" is not a term of art used by a person of ordinary skill. The intrinsic evidence does not help, as the term is defined in neither the claims nor the specification. *See also* Ex. 3 (Dkt. 174-16, Mowry Decl.) ¶¶ 26-27. Nor has Eolas presented any evidence, including in its two expert declarations totaling approximately 100 pages from Dr. David M. Martin, that the term was ever used before the '507 patent issued, much less before 1994, when the specification was filed. Subsequent to the Texas court's claim construction ruling, the inventor

Cheong Ang testified that [redacted] Ex. 4 (Feb. 8, 2017 C. Ang Depo Tr.), 30:14-23. [redacted] *Id.* at 30:24-31:5. Another named inventor, David Martin, testified consistently, admitting that [redacted] Ex. 5 (Jan. 12, 2017 D. Martin Depo. Tr.), 82:12-22.

The term "interactive-content application" is a coined phrase; accordingly, it is best understood by reference to the specification. *3M Innovative Props. Co. v. Tredegar Corp.*, 725 F.3d 1315, 1321 (Fed. Cir. 2013). But the specification does not use the word. At most, the specification refers separately to a number of different "application programs" and to "interactivity" in both the prior art and the invention. *See, e.g.*, Ex. 1 ('507 patent), 6:32, 6:62-64, 12:17-61, 13:19-32, 15:6, 16:4-7. Yet, none of these passages states why these applications are—or as perhaps more importantly, are not—"interactive-content applications."

Despite this, the Texas court found that the term "interactive-content application" was not a coined term because "interactivity" was a well-known concept at the time. Ex. 7 (Dkt. 212, Order), 9-10. But the fact that generic "interactivity" was known in the prior art does not mean that the special compound phrase "interactive-content application" was known by anyone, especially given the purportedly novel functions attributed to it. *See Advanced Ground Information Systems, Inc. v. Life360, Inc.* ("*AGIS*"), 830 F.3d 1341, 1348 (Fed. Cir. 2016) (rejecting expert testimony regarding the meaning of "symbol" and "generator" where the disputed claim term was "symbol generator," which was a phrase not known in the relevant art). The Texas court further reasoned that because the term "interactive-content application" is never used in the '507 patent specification, "the specification would not use that term to distinguish from an 'application' that is not interactive." Ex. 7 (Dkt. 212, Order), 10. That is certainly true, but the *absence* of a term from a specification shows that the term was coined for the claims, not that it existed in the art. Rather, the failure to provide a discernible meaning in the specification for "interactive-content application" serves only to show that it fails to provide the requisite meaning

for this coined term. *3M*, 725 F.3d at 1321.

2. The Intrinsic Evidence Establishes That The Scope Of The Invention Encompasses Some But Not All Interactivity.

Whether or not a coined term, under *Nautilus*, the term "interactive-content application" must inform, with reasonable certainty, those skilled in the art about the scope of the "interactive-content application." The claims, of course, do not. And nor does the specification, which does not use the word. At most, the specification notes that prior art Internet systems allowed for some form of limited interactivity, including images that could be assigned links that a user could interact with by clicking to navigate to the linked content, *see, e.g.*, Ex. 1 ('507 patent), 1:67-2:3, 2:19-39, Fig. 1 (labeled "prior art"), which the specification calls "interaction." *Id.* at 6:30.

But then the specification goes on to suggest that the invention allows for a new and different level of interaction not shown in the prior art. For instance, the specification says that the invention allows users to interact with multidimensional image data, such as embryos in the Visible Embryo Project. *Id.* at 9:54-65, 10:6-15, 10:39-54, 11:22-25, 15:47-48, 16:2-16, 16:17-36. The specification contrasts this with the interactivity in the prior art, stating that "while the present open distributed hypermedia system on the Internet allows users to locate and retrieve data objects it allows users very little … interaction with these data objects," but that the alleged invention "allow[s] a user to manipulate data objects in an interactive way to provide the user with a better understanding of information presented and to allow the user to accomplish a wider variety of tasks." *Id.* at 6:27-41. Noticeably absent from the specification are the differences between the two, other than some undefined degree of interactivity. The specification's failure to differentiate the prior art's interactivity from the supposed invention's interactivity leaves the scope of "interactive-content application" entirely uncertain—for example, just how much interactivity is required to cross the threshold from a mere prior-art application that allows for interaction to a full-fledged "interactive-content application"? The specification never says. And the Texas court's construction would certainly cover the prior art applications that the specification explains are outside the scope of the purported invention.

Finally, the prosecution history adds still more ambiguity. During prosecution of the

application leading to the '507 patent, Eolas used the degree of supposed interactivity as a distinction over the prior art, including Viola, MediaView, Mosaic, and Raggett. *See* Ex. 8 (Dkt. 174-2, Ex. A), 5-10. First, the applicants admitted that Viola allowed for interaction with content, stating: "The file plot.v contained the filesystem path to the VPlot application (/home/wei/vplot/vplot), used to identify and locate the VPlot executable application, which was then launched *to allow the user to interactively manipulate the default grid object in the page*." *Id.* at 5 (emphasis added). Yet, the applicants also argued that this interactivity was insufficient to make Viola an "interactive-content application." As the applicants put it, they "could not find" in Viola "[t]he automatically-invoked interactive-content application as defined in claim 14" in Viola. *Id.* at 6.

Similarly, during prosecution of the parent '443 application, Eolas contrasted the alleged invention's supposed level of interactivity with the prior art's level of interactivity. *See* Ex. 9 (Dkt. 174-3, Ex. B, Attachment A), 2-3, 8. For example, in contrast to a prior art "MPEG movie" that a user can interact with by "hit[ting] Play," the applicants explained that the alleged invention enabled a user to "interact with it, and rotate [an] embryo, for instance, to different vantage points." *Id.* at 8. Thus, like the specification, the prosecution history attempts to draw a distinction based on the *degree* of interactivity. Yet, neither the specification nor the prosecution history provides any objective criteria for a person of skill in the art to understand the distinction. *Interval Licensing LLC v. AOL, Inc.*, 766 F.3d 1364, 1371 (Fed. Cir. 2014) ("The claims, when read in light of the specification and the prosecution history, must provide objective boundaries for those of skill in the art.").

3. The Texas Court Committed Error By Deferring The Issue Of Claim Scope To The Jury.

Because the intrinsic evidence provides no way for a person of ordinary skill in the art to determine what level, or amount, of "interactivity" is required to rise to the level of an "interactive-content application," the claims do not have a reasonably certain scope. The Texas court acknowledged this problem. But, as noted above, the court committed error by deferring this issue to the jury: "whether an application is 'interactive' depends upon the details of a particular

implementation and is a factual question regarding infringement rather than a legal question for claim construction." Ex. 7 (Dkt. 212, Order), 10. The Texas Court's order implicitly requires some level of interactivity. "[W]hether an application is 'interactive'" necessarily depends on the meaning of "interactive content application," which is a legal question of claim scope rather than a fact question of infringement—a question that the Texas court should thus have resolved. *See, e.g., Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 789 F.3d 1335, 1342 (Fed. Cir. 2015) ("The internal coherence and context assessment of the patent, and whether it conveys claim meaning with reasonable certainty, are questions of law.").

Accordingly, that legal question must be answered by the intrinsic evidence, using objective criteria. *See Signal IP v. American Honda Motor Co., Inc.*, No. CV14-02454, 2015 WL 5768344, at *24-25 (C.D. Cal. Apr. 17, 2015) (finding the term "consolidated" indefinite because "[n]othing in the claims or specification allows a person of ordinary skill in the art to know the 'objective boundaries' of the claim"). The Texas court's construction of the term as "an application that enables a user to interact with content" combined with its reasoning that "whether an application is 'interactive' … is a factual question regarding infringement," improperly leaves a dispute regarding the scope of the claims for resolution by the jury. *See, e.g., O2 Micro Int'l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1360-61 (Fed. Cir. 2008) (finding the lower erred in refusing to construe a claim term because the parties did not dispute the meaning of the words themselves but the scope that should be encompassed by the claim language). Moreover, given the intrinsic evidence about "interactive-content application," the Texas court's order leaves unresolved a dispute about a term of degree, thereby improperly leaving the jury to decide an issue with no standard for measuring the scope of what an "interactive content application" is. *See, e.g., Interval Licensing*, 766 F.3d at 1370-71.

With respect to the prosecution history that echoed the supposed but unexplained distinction between the patent's and prior art's "interactivity," the Texas court found that the prosecution history Defendants pointed to "does not say anything about the degree of interactivity, only that the prior art did not 'automatically-invoke[] interactive-content application' as required by the claim limitation." Ex. 7 (Dkt. 212, Order), 10; *see* Ex. 8 (Dkt. 174-2, Ex. A, Feb. 3, 2015

Response), 6 (emphasis added). But as Defendants argued (Ex. 6 (Dkt. 174, Resp. Br.), 4 n.2), the alleged distinction Eolas made had to be in relation to the "interactive-content application" because the "automatically-invoked" limitation was already in the patent claims invalidated in *Eolas I*. Something *new* needed to be added by this element to make the claims patentable over the prior art. The Texas court's construction certainly provides no basis by which to distinguish levels of interactivity.

The Texas court noted also that "the prosecution history referenced discusses other claim limitations besides the 'interactive-content application'" (Ex. 7 (Dkt. 212, Order), 10), but that is irrelevant. Regardless of whether Eolas distinguished the prior art based on "other limitations" too, the fact remains that Eolas emphasized "interactive-content application" as a separate and distinct point of novelty. Ex. 8 (Dkt. 174-2, Ex. A, Feb. 3, 2015 Response), 5-10 (stating that applicants could not find the interactive-content application element in the prior art). Eolas's statement that the "interactive-content application" element was not in the prior art, combined with the specification's failure to delineate the prior art from the allegedly inventive "interactive-content application," renders the claim indefinite. *Cf. Avocent Huntsville, LLC v. ZPE Sys., Inc.*, No. 17-cv-04319-WHO, 2018 WL 4677437, at *10-12 (N.D. Cal. Aug. 8, 2018) (finding "management application" indefinite in part because the patentee had argued that the claimed "management application" "***provide[d] part of the inventive concept*** rendering the subject matter of these claims patentable," without describing sufficient structure (emphasis added)).

Additionally, as discussed in Defendants' Responsive Claim Construction Brief, the scope of the "interactive-content application" cannot be discerned because the claims recite that it must somehow be "part of" a "distributed application" *and* be a "distributed interactive-content application." Ex. 6 (Dkt. 174, Resp. Br.), 10-11.[3] The lack of any discernible boundary of the

[3] The claims simply add more ambiguity by distinguishing programs like word processors and spreadsheets from "interactive content applications." For instance, as Defendants noted to the Texas court (*see* Ex. 6 (Dkt. 174, Resp. Br.), 3), claims 28 and 30 recite "word processors" and "spreadsheets" as *separate* and *distinct* terms from the "interactive content application" and never link spreadsheets or word processes to the "interactive content application." Though the Texas court rejected this reliance on claims 28 and 30 (*see* Ex. 7 (Dkt. 212, Order), 10), it did not confront how the "interactive content application" could be the same "word processor" or "spreadsheet" application recited in those dependent claims, even though Eolas explicitly argued that such applications are can be "interactive-content applications." Ex. 12 (Dkt. 179, Reply Br.), 1-2.

"interactive-content application" was further demonstrated in Dr. Martin's declaration, where Dr. Martin pointed to the same disclosures about VIS, Panel, and VRServer for all of these terms. Ex. 10 (Declaration of David M. Martin, Jr. ("Martin Decl.") ¶¶ 93, 103; *see also* Ex. 11 (Dkt. 168, Opening Br.), 8-9, 13 (Eolas pointing to same specification passages regarding VIS for both "interactive content application" and "distributed application" terms). The Texas court did not address this issue. Yet, even Eolas argued that "the claims cover [word processors and spreadsheets] where they act as distributed applications." Ex. 12 (Dkt. 179, Reply Br.), 1 n.2. And, since the claims distinguish "interactive-content applications" from "distributed applications," Eolas's own argument serves only to further undercut the Texas court's finding that the disclosure of word processors or spreadsheets in the specification informs the meaning of "interactive-content application."

That the Texas court's construction does not "define" the term "application" makes this line-drawing even more problematic. As also noted by Defendants (Ex. 6 (Dkt. 174, Resp. Br.), 11), the specification uses "application" to describe only a single software program, like a "video player" or named inventor Doyle's "VIS" and MetaMAP programs. Ex. 1 ('507 patent), 13:26-32, 11:22-25, 11:42-46; 12:35-42. Yet, the Texas court's construction provides no guidance as to the scope of the term. Eolas appears to treat this term as synonymous with software, and accuses disparate systems, scripts, and software all over the WWW, and even beyond, as the supposed "interactive-content *application*" (Ex. 13 (Opening Expert Rep. of Dr. David Martin), ¶¶ 124-25, 130-47), regardless of whether or not they are single software programs.[4] The Texas court did not

[4] Dr. Martin's pointing to dictionary definitions proves Defendants' point. For instance, Dr. Martin cited the definition of "application" in the New IEEE Standard Dictionary of Electrical and Electronics Terms. But that dictionary defines "application" as a generic black box that can do anything it is programmed to do: "'[A]pplication' is defined as 'The use to which a computer system is put; for example, a payroll application, an airline application, or a network application.'" Ex. 10 (Dkt, 168-1, Martin Decl.) ¶ 36. The "use" to which a computer system can be put is just the function that it can be programmed to perform and does not "bring to mind any specific structure to a person of skill in the art." *MTD Prods. Inc. v. Iancu*, 933 F.3d 1336, 1344 (Fed. Cir. 2019) . Indeed, the IEEE's examples make the point—a payroll, airline, or network application cannot be expected to share a specific structure. *See* Ex. 3 (Dkt. 174-16, Mowry Decl.) ¶ 30; *see also id.* ¶ 28 (discussing lack of structure in dictionary definitions of application). Their only commonality is that they are each programmed to perform a different task.

address this, either.

B. "Interactive-Content Application" Is Indefinite Also Because It Is Claimed Solely By Its Functions Without Any, Much Less Sufficient, Structure For Performing Those Functions.

1. "Interactive-Content Application" Is A Non-structural Nonce Term

The term "interactive-content application" is indefinite also because "interactive-content application" is recited in the claims only by reference to what it *does*, and not by what it *is*. The Texas court's description of the claim language and specification highlights the point:

> The claims give clear guidance that the "interactive-content application" enables a user to interact with content. '507 Patent at 22:7-9, 23:38-40, 25:18-19. Each of the asserted independent claims includes the language, "each said interactive-content application being configured to *enable a user to interact*." *Id.* (emphasis added). The specification also confirms that the "interactive-content application" enables a user to interact with content. *Id.* at 6:37–41, 6:57–62, 7:1–8, 9:54–59. The specification demonstrates that the application "allows" a user to interact with content, or that the user is "able" to interact with content, which supports that the "interactive-content application" enables a user to interact with content. *Id.*

Ex. 7 (Dkt. 212, Order), 9. According to the Texas court, the "interactive-content application" is any application that achieves the purely functional result of enabling a user to interact with content, independent of any structural limitation. *See also* Ex. 12 (Dkt. 179, Reply Br.), 2. (Eolas arguing in its Claim Construction Reply that "[w]hether an interactive-content application, as recited in the claims, is interactive is a binary decision: can a user interact with the application in the browser or not," but offering no other manner in which to delineate an "interactive-content application" from applications generally). The Federal Circuit rejects such purely functional constructions. *Halliburton Energy Servs., Inc. v. M-I LLC*, 514 F.3d 1244, 1255 (Fed. Cir. 2008) (quoting *In re Swinehard*, 439 F.2d 210, 212 (C.C.P.A. 1971)) (construction incorrect because "the two parts of Halliburton's proposed definition discussed above … are functional, i.e., the fluid is defined 'by what it does rather than what it is.'").

As this Court stated in *Rideapp, Inc. v. Lyft, Inc.*, No. 18-cv-07152-JST, 2019 WL 7834175, *2 (N.D. Cal. Oct. 16, 2019), while the Patent Act permits patentees to employ functional *language* in a claim, the Patent Act does not permit a patent to *claim* naked functions themselves. Rather,

functional *language* is permissible only when the structure that performs the recited function is disclosed elsewhere in the patent—*i.e.*, in the specification—and, if so, the claims are construed as if the limiting structure was recited in the claims themselves. This is both a drafting convenience and a rule of construction, not a separate rule that relieves applicants of their absolute obligation to define their inventions structurally. "An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof." 35 U.S.C. § 112(f). "In enacting this provision, Congress struck a balance in allowing patentees to express a claim limitation by reciting a function to be performed rather than by reciting structure for performing that function, while placing specific constraints on how such a limitation is to be construed"—i.e., "by restricting the scope of coverage to only the structure, materials, or acts described in the specification as corresponding to the claimed function and equivalents thereof." *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1347 (Fed. Cir. 2015) (en banc). The Texas court's construction is, thus, incorrect because it is purely functional without being limited to any particular structure, material, or acts described in the specification.

The court should have construed—indeed, had no choice but to construe—the term under Section 112(f) in order to at least try to save the claims. To determine whether Section 112(f) applies, the Federal Circuit begins by asking whether the claim limitation employs the word "means." Where, as here, the claim does not recite "means for," a rebuttable presumption arises that the term is not functional, conveys sufficiently definite structure, and is not subject to Section 112(f). *Williamson*, 792 F.3d at 1349. A challenger can rebut this presumption by demonstrating "that the claim term fails to 'recite sufficiently definite structure' or else recites 'function without reciting sufficient structure for performing that function.'" *Id.* (quoting *Watts v. XL Sys., Inc.*, 232 F.3d 877, 880 (Fed. Cir. 2000)). As the Federal Circuit has described it, the "critical question [in determining the applicability of Section 112(f)] is whether 'the claim term is used in common parlance or by persons of skill in the pertinent art to designate structure,' including either a particular structure or a class of structures." *MTD Prods. Inc. v. Iancu*, 933 F.3d 1336, 1341 (Fed.

Cir. 2019).

The evidence shows that the term "interactive-content application" is not the name of a structure, or even a class of structures, known in the art. As detailed above in the Background, the claims recite two functions associated with the "interactive-content application," interaction with World Wide Web pages and operating as part of a distributed application. *See supra* pp. 2-4. Yet, the claims provide no structure for performing either of those functions. The Texas court's functional construction, therefore, makes the "interactive-content application" a generic stand-in for *any* software that can perform both functions. *See* Ex. 3 (Dkt. 174-16, Mowry Decl.) ¶¶ 27-31.

"Interactive-content application" is similar to the term at issue in *AGIS*, 830 F.3d 1341. In *AGIS*, the asserted claim recited a system including a "symbol generator in [a central processing unit ('CPU')] that can generate symbols … ." *Id.* at 1345. The district court found that "symbol generator" did not connote a structure known in the art, and thus the term had to be construed under Section 112(6). Because the specification provided no structure for the "symbol generator," the court found the claim indefinite. The Federal Circuit affirmed, rejecting expert testimony that focused on the fact that the atomic terms—"symbol" and "generator"—were known in the art. The Federal Circuit rejected that testimony because "symbol" and "generator" were not the relevant claim terms. The compound term "symbol generator" was the relevant claim term, and there was no evidence that *that* term was known in the art. "Irrespective of whether the terms 'symbol' and 'generator' are terms of art in computer science, the *combination* of the terms as used in the context of the relevant claim language suggest that it is simply an abstraction that describes the function being performed (i.e., the generation of symbols)." *Id.* at 1348 (emphasis in original). The combined term—"symbol generator"—did not connote structure because it "recites abstract elements '*for*' causing actions or elements that '*can*' perform functions." *Id.* at 1347-48 (emphasis added).

"Interactive-content application" is as much a nonce term as "symbol generator." Indeed, Eolas's expert, Dr. Martin, makes essentially the same argument the expert in *AGIS* made—that "interactive content" and "application" were well-known in the field. *See* Ex. 10 (Dkt. 168-1,

Martin Decl.) ¶ 33. So did the Texas court.[5] Ex. 7 (Dkt. 212, Order), 9-10. But this misses the point because the claim term is "interactive-content application," and it is undisputed that *that* term is unknown in the art. *See supra* p. 10 n.4. Instead, "interactive-content application" is just an abstraction, a generic stand-in for anything that performs the recited functions, as Eolas itself puts it: "Whether an interactive-content application, as recited in the asserted claims, is interactive is a binary decision: *can* a user interact with the application within a Web browser or not?" Ex. 12 (Dkt. 179, Reply Br.), 2. Just as in *AGIS*, "interactive-content application" is an abstract element that "'can' perform functions." 830 F.3d at 1348.

The Federal Circuit's decision in *Williamson*, too, is closely analogous. In *Williamson*, the disputed term was "distributed learning control module." As the Federal Circuit noted, "module" "is simply a generic description for software or hardware that performs a specified function.'" *Williamson*, 792 F.3d at 1350. So too is "application" in the context of this patent. The expert in *Williamson* defended "distributed learning control module" precisely as Dr. Martin does here. In *Williamson*, the expert said, "'one of ordinary skill in the art, reading the specification, … would know exactly how to program' a computer to perform the recited functions … ." *Id.* at 1351. Dr. Martin says the same thing: "[A] typical student [in Computer Science is] capable of writing 'applications that enable a user to interact with content' *years* before the student had completed the Computer Science curriculum as a whole, whether or not the student were [sic] familiar with the specific teaching of the '507 patent." *See* Ex. 14 (Dkt. 179-3, Supplemental Declaration of David M. Martin, Jr. ("Martin Supp. Decl.")), ¶ 11. Both experts missed the point. "[T]he fact that one of skill in the art could program a computer to perform the recited functions cannot create structure where none otherwise is disclosed." *Williamson*, 792 F.3d at 1351. A contrary rule could allow applicants to own all future ways of achieving their novel results, which has been prohibited by our patent law for more than 150 years. *See, e.g.*, *Fuller v. Yentzer*, 94 U.S. 288 (1876) ("Patents for a machine will not be sustained if the claim is for a result, the established rule being that the

[5] As to *AGIS* specifically, the Texas court said that "Defendants have not persuasively shown that the disputed term is analogous to 'symbol generator' or that the constituent term 'application' is analogous to the term 'generator,'" with no further explanation. Ex. 7 (Dkt. 212, Order), 13.

invention, if any, within the meaning of the Patent Act, consists in the means or apparatus by which the result is obtained, and not merely in the mode of operation, independent of the mechanical devices employed."); *Gen. Elec. Co. v. Wabash Appliance Corp.*, 304 U.S. 364, 371 (1938) (holding claim indefinite because it "uses indeterminate adjectives which describe the function of the grains to the exclusion of any structural definition, and thus falls within the condemnation of the doctrine that a patentee may not broaden his product claims by describing the product in terms of function.").

Other cases finding terms including "application" to be nonce terms further demonstrate that "interactive-content application" is a nonce term as well. For example, in *CXT Sys., Inc. v. Academy, Ltd.*, No. 18-cv-00171-RWS-RSP, 2019 WL 4253841 (E.D. Tex. Sept. 5, 2019), two terms at issue were "server-side application for interacting with the central repository" and "server-side application for interacting with a database management system." *Id.* at *15. The court found that "server-side application" invoked Section 112(f) because "there is no claim recitation of the objective or operation of the server-side application, and it is not clear what are the application's inputs and outputs," such that "the structural nature of the server-side application is defined solely by the claim-recited function it performs." *Id.* So too here, where "interactive-content application" can be defined, if at all, only by the function it performs, as the Texas court's construction does.

Similarly, *Avocent Huntsville, LLC v. ZPE Sys., Inc.*, No. 17-cv-04319-WHO, 2018 WL 4677437 (N.D. Cal. Aug. 8, 2018), construed a term ("management application") analogous to "interactive-content application." *Id.* at *5-10. In part because the patentee had argued that "management application" "provide[d] part of the inventive concept rendering the subject matter of these claims patentable," the court found that "management application" could not connote sufficient structure to a person of ordinary skill in the art. *Id.* at *10. Accordingly, the court found "management application" subject to Section 112(f). *Id.* at *11; *see also Verint Sys. Inc. v. Red Box Recorders LTD*, 166 F. Supp. 3d 364, 379 (S.D.N.Y. 2016) (finding the term "computer application" "operative" to perform two functions to invoke Section 112(f) because, while "computer application" was "defined in a technical dictionary as a 'collection of software components used to perform specific types of user-oriented work on a computer,' [the term] fails

to provide sufficient additional structure that would not otherwise be implicitly understood if the claim were defined as 'means for performing' the aforementioned computer-implemented functions.").

Eolas may point to *Zeroclick, LLC v. Apple Inc.*, 891 F.3d 1003 (Fed. Cir. 2018), where the Federal Circuit found that the defendant did not meet its burden to show the terms "program" and "user interface code" were nonce terms under section 112(6). But, in *Zeroclick*, the Federal Circuit relied on the "specific references" in the specification to "conventional graphical user interface programs or code [] existing in prior art at the time of the inventions," to find that the disputed terms were not "generic terms or black box recitations." *Id.* at 1008. Here, however, as detailed above, the '507 patent claims, specification, and prosecution history all *distinguish* the interactivity in applications that existed in the prior art from the interactivity in the '507 patent. *See* Ex. 8 (Dkt. 174-2, Ex. A, Feb. 3, 2015 Response), 6. Further, unlike in *Zeroclick* and as detailed above, Defendants have offered two declarations from an expert demonstrating that interactive-content application is not a term of art and have further supported this with contemporaneous and unrebutted evidence, and testimony from inventors, and even Eolas's own expert.

2. The District Court Erred In Finding That The Term "Interactive-Content Application" Was Defined By The Intrinsic Evidence.

The Texas court found, without any discussion or elaboration, that the specification shows that interactive content application connotes a "class of 'application" structures.'" Ex. 7 (Dkt. 212, Order), 11 (citing Ex. 1 ('507 patent) at 15:65-66, 6:37-41, 6:59-62, 8:45-11:24, 13:19-25). But the Texas court failed to cite any evidence showing this class of structures or indicating what this "class" of structures actually is. Nor could it. These passages merely restate the claims' functional language.[6] Ex. 1 ('507 patent), 15:65-66 ("The present invention allows a user to have interactive

[6] The Texas court cited the Federal Circuit's opinion in the *Eolas Techs., Inc. v. Microsoft Corp.*, 399 F.3d 1325, 1338 (Fed. Cir. 2005) ("*Microsoft*"). But the Texas court did not explain how *Microsoft*, which predated *Williamson* and where means-plus-function claiming was not at issue, supported its ruling. Instead, it just pointed to the Federal Circuit's opinion affirming the construction of the term in the '906 patent, not in the '507 patent, "executable application" as "a

control over application objects … ."); 6:37-41 ("[I]t is desirable to allow a user to manipulate data objects in an interactive way … ."); 6:59-62 ("The invention … also allows the user to interact with an application program located at a remote computer."); *see also supra* p. 13 (discussing specification's disclosures of various applications and how none of these inform what "interactive-content application" *is*, much less what class of structures it encompasses).

The Court additionally found that the claim language surrounding "interactive-content application" provides "context as to the 'input and 'outputs' and how an 'interactive-content application' 'interacts with other components … in a way that … inform[s] the structural character of the limitation-in-question or otherwise impart[s] structure.'" Ex. 7 (Dkt. 212, Order), 11. But the claims' only description of "interactive-content application[s]"—other than a recitation of the functions themselves—is that (1) browsers are configured with more than one of them, and (2) they are automatically invoked by the browser. While this may say something about the structure of the claimed *browser*, it provides no insight into the structure of the "interactive-content application."

The Texas court cited also several cases in support of its finding that the claim language "informs" the structure of "interactive-content application." *See id.* at 11-12. But these cases involved terms that were conventional components that were understood in the art to connote actual structure, were further defined by the claim language, and had nothing to do with the alleged novelty of the invention over the prior art. For instance, *Linear Technology Corp v. Impala Linear Corp.*, 379 F.3d 1311, 1320 (Fed. Cir. 2004) involved the term "circuit," and the court found that a skilled artisan "would understand the structural arrangements of circuit components from the term 'circuit' coupled with the qualifying language of claim 1 … ." The other cases the Texas court cited are similar. *See e.g.*, *Apex Inc. v. Raritan Computer, Inc.*, 325 F.3d 1364, 1373 (Fed. Cir. 2003) ("[I]t is clear that the term 'circuit,' by itself connotes some structure."); *Personalized Media Commc'ns, LLC v. ITC*, 161 F.3d 696, 704-05 (Fed. Cir. 1998) ("'Detector' is not a generic

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computer program code, that is not the operating system or a utility, that is launched to enable an end user to directly interact with data." *Id.* But here too, it is unclear how that supports that "interactive-content application" is the name of a structure known in the art, and even that construction is not structural but points to the function of "interaction."

structural term … '[D]etector' had a well-known meaning to those of skill in the electrical arts connotative of structure, including a rectifier or demodulator."); *Greenberg Ethicon Endo-Surgery, Inc.*, 91 F.3d 1580, 1583 (Fed. Cir. 1996) ("'Detent' "denotes a type of device with a generally understood meaning in the mechanical arts, even though the definitions are expressed in functional terms. … What is important is not simply that a "detent" or "detent mechanism" is defined in terms of what it does, but that the term, as the name for structure, has a reasonably well understood meaning in the art."). Here, by contrast, the "interactive-content application" is not a known, conventional element like a "detector" or a "circuit," and it is touted as a critical distinction over the prior art—and thus suffers from the core vice of functional claiming that our patent laws are intended to prohibit. clAs the Federal Circuit noted in *Halliburton*, "[i]n *General Electric*, the [Supreme] Court held that a vice of functional claiming occurs 'when the inventor is painstaking when he recites what has already been seen, and then uses conveniently functional language at the exact point of novelty." *Halliburton*, 514 F.3d 1255 (quoting *General Electric Co. v. Wabash Appliance Corp*., 304 U.S. 364, 371 (1938)). The surrounding claim language, which itself is non-structural, does not and cannot supply the missing structure for the purportedly novel "interactive-content application." The Texas Court thus erred in failing to find that "interactive-content application" is a means-plus-function term.

C. Proper Construction Under Section 112(f).[7]

Construction of a claim term subject to Section 112(f) is a two-step process. The first step is to identify the recited function or functions. *Noah Sys., Inc. v. Intuit Inc.*, 675 F.3d 1302, 1311 (Fed. Cir. 2012). The second step is to determine what structure, if any, disclosed in the specification corresponds to the recited functions. *Williamson*, 792 F.2d at 1351. The Texas court's order noted that, because it did not find "interactive-content application" to be a means-plus-function term, it did not address the parties' arguments under Section 112(f). Ex. 7 (Dkt. 212,

[7] Given that the Texas court did not reach the merits of this issue, there is nothing for this Court to reconsider from the Texas court's Order on these issues. For brevity, Defendants do not repeat all their arguments fully again here. They can be found in the record at Dkt. 174 at 8-10 (Ex. 6) and Dkt. 182-1 at 1 (Ex. 15), as supported by the Mowry declarations (Exs. 3, 16).

Order), 13.

On the first step—identification of functions—the parties agree that the first function is "enabling a user to interact, within one or more World Wide Web pages, with at least part of one or more objects while at least part of each of one or more objects is displayed to the user within at least one of said one or more Word Wide Web pages." Defendants contend that there is a second function—operating as part of a distributed application. Eolas disagrees that this second function is necessary even though it is expressly recited in the claims. But regardless of the parties' dispute regarding the definition of functions, the parties agree that indefiniteness here turns on the presence or absence of algorithms in the specification.

An "interactive-content application" is undeniably software, and so the parties agree that the only acceptable structure for a software function is an algorithm that performs the recited function. *See, e.g., Aristocrat Tech. Austl. Pty Ltd. v. Int'l Game Tech.*, 521 F.3d 1328, 1334 (Fed. Cir. 2008). Defendants demonstrate below, and demonstrated in their prior papers, that there is no algorithm for either recited function.

Before the Texas court, Eolas's claim construction disclosures did not identify an algorithm for either of the two required functions. Instead, for the structure for performing the recited functions, Eolas simply identified "an application, like those used in Figures 5, 6, 9, or 10 and specification at 8:45-11:2, 11:3-11:24, 16:17-36 and 16:37-55, and equivalents thereof." *See* Ex. 7 (Dkt. 212, Order), 7-8. As Defendants' noted in their claim construction briefing, none of the portions of the specification Eolas identified constituted an algorithm at all, let alone algorithms for either of the two required functions. Ex. 6 (Dkt. 174, Resp. Br.), 8-10; *see also* Ex. 3 (Dkt. 174-16, Mowry Decl.) ¶¶ 35-49, 65.

After failing to identify an algorithm for performing the recited functions, Eolas attached to its reply brief a "supplemental" declaration from its expert, Dr. Martin, citing new portions of the specification not identified in Eolas's original briefing or claim construction disclosures. But Dr. Martin's new citations still failed to demonstrate any algorithms for either function of an "interactive-content application." Instead, as Defendants showed in their surreply, for the first function concerning enabling a user to interact with World Wide Web pages, Dr. Martin merely

cites a generic description of image processing and other references to applications doing various functions by unspecified "instructions," "comput[ations]," and "means," none of which discloses any algorithm for performing the first claimed function of the "interactive-content application." Ex. 15 (Dkt. 182-2, Surreply), 1*;* Ex. 16 (Dkt. 182-2, Supplemental Declaration of Dr. Todd Mowry ("Mowry Supp. Decl.")) ¶ 28. As the Federal Circuit put it in *Augme Technologies, Inc. v. Yahoo! Inc.*, 755 F.3d 1326, 1338 (Fed Cir. 2014), "[s]imply disclosing a black box that performs the recited function is not a sufficient explanation of the algorithm to render the means-plus-function term definite."

Nor does Dr. Martin's "flowchart" demonstrate an algorithm for either of the two required functions. As an initial matter, Dr. Martin's "flowchart," while presented in a manner that looks like a patent figure, is nowhere found in the '507 patent. Ex. 14 (Dkt. 179-3, Martin Supp. Decl.) ¶ 20. Substantively, the "flowchart" fails to provide step-by-step instructions for the "interactive-content application" to perform either of the two required functions. Instead, it is merely a "generic event loop that … does not describe the first claimed function." *See* Ex. 16 (Dkt. 182-2) ¶ 20. This is so because there "is no description of any interaction at any step in this flowchart." *Id.* It is "'essentially a black box that performs a recited function' … and 'how it does so is left undisclosed.'" *Rideapp,*, 2019 WL 7834175, *5 (quoting *Black-board, Inc. v. Desire2Learn, Inc.*, 574 F.3d 1371, 1383 (Fed. Cir. 2009),

In any case, the Federal Circuit has long held that the knowledge of one skilled in the art cannot be used to fill in the gaps of structural disclosures. As the court put it in *Function Media, L.L.C. v. Google Inc.*, 708 F.3d 1310, 1319 (Fed. Cir. 2013), "it is well established that proving that a person of ordinary skill *could* devise some method to perform the function is not the proper inquiry as to definiteness [under section 112(6)/(2)]—that inquiry goes to enablement." The fact that Eolas had to create an entirely new flowchart not found in the specification only further demonstrates that the specification fails to disclose adequate structure in the form of an algorithm for performing the claimed functions.

Dr. Martin's supplemental declaration similarly failed to show an algorithm for performing the second function—"operating as part of a distributed application." As Dr. Mowry explained,

none of Dr. Martin's citations—or anything else in the specification including the code appendices—describes an algorithm for multiple computers communicating with each other to perform interactions as required. *See* Ex. 3 (Dkt. 174-16, Mowry Decl.) ¶¶ 35-41. Instead, Dr. Martin improperly tried to rely on the knowledge of one of ordinary skill in the art to provide the requisite structure. *See* Ex. 14 (Dkt. 179-3, Martin Supp. Decl.) ¶¶ 38-39. Again, however, the structure must come from the specification, not from an expert's testimony. The specification's lack of disclosure of any algorithm for performing the claimed functions of the "interactive-content application" renders the claims indefinite.

CONCLUSION

For at least the reasons set forth above and for the reasons set forth in Defendants' Opening and Responsive Claim Construction Briefs, Defendants respectfully request that the Court construe the term "interactive content application" to be indefinite.

Dated: April 14, 2020 Respectfully submitted,

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ATTESTATION

I, David A. Perlson, am the ECF user whose user ID and password authorized the filing of this document. Under Civil L.R. 5-1(i)(3), I attest that all signatories to this document have concurred in this filing.

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